

# CLS500 2V500Ah

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.

## Battery Construction

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

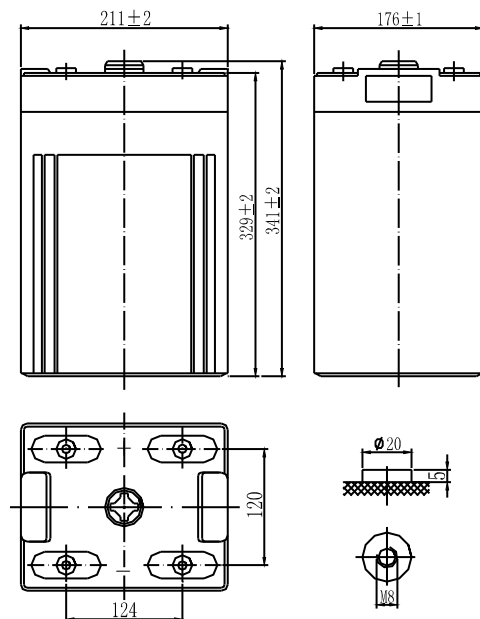
## General Features

- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, Pure lead grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.

## Dimensions and Weight

Length(mm / inch)	210 / 8.27
Width(mm / inch)	176 / 6.93
Height(mm / inch)	330 / 13.00
Total Height(mm / inch)	367 / 14.5
Approx. Weight(Kg / lbs)	27.5 / 60.6

\* Weight deviation:  $\pm 3\%$



Total height with removeable cover: 367

## Performance Characteristics

Nominal Voltage	2V
Number of cell	1
Design Life	15 years
Nominal Capacity 77°F(25°C)	
10 hour rate (50A, 1.8V)	500Ah
5 hour rate (94.6A, 1.75V)	473Ah
1 hour rate (344A, 1.6V)	344Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	$\leq 0.68\text{mOhms}$
Self-Discharge	
2% of capacity declined per month at 20°C(average)	
Operating Temperature Range	
Discharge	-20~60°C
Charge	-10~60°C
Storage	-20~60°C
Max. Discharge Current 77°F(25°C)	2000A(5s)
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	2.40-2.45VPC
Maximum charging current	100A
Temperature compensation	-5.0mV/°C
Standby use	2.20-2.30VPC
Temperature compensation	-3.3mV/°C

## Discharge Constant Current (Amperes at 77°F25°C)

End Voltage/ volt per cell			30min	45min	1h	3h	5h	10h
1.60			589	431	344	153	99.8	54.9
1.67			549	405	319	146	96.8	53.2
1.75			507	378	302	139	94.6	51.3
1.80			477	358	290	133	91.4	50.0

## Discharge Constant Power (Watts at 77°F25°C)

End Voltage/ volt per cell			30min	45min	1h	3h	5h	10h
1.60			1084	836	683	301	193.1	109.1
1.67			1007	782	641	285	187.1	105.4
1.75			931	728	598	269	181.2	101.0
1.80			879	690	568	257	176.2	96.9

(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

All data shall be changed without notice, Vision reserves the right to explain and update the information contained hereinto.

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